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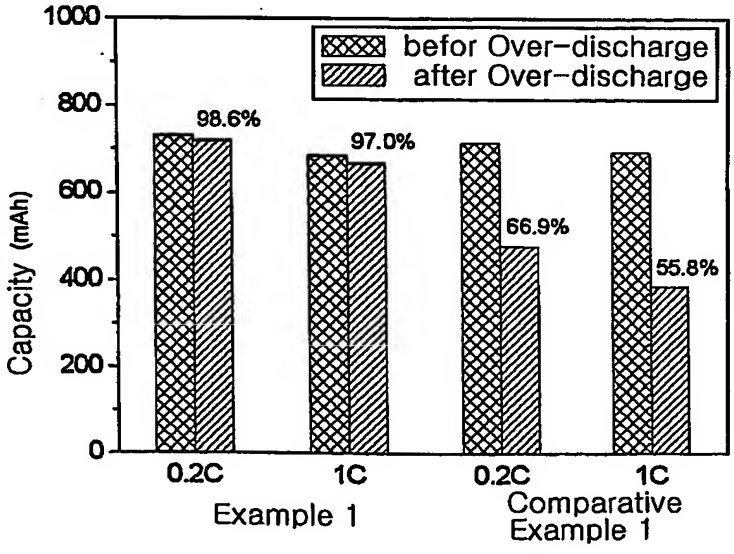
(54) Title: CATHODE ACTIVE MATERIAL COMPRISING ADDITIVE FOR IMPROVING OVERDISCHARGE-PERFORMANCE AND LITHIUM SECONDARY BATTERY USING THE SAME



(57) Abstract: Disclosed is a cathode active material providing a cell performance that is not adversely affected by overdischarge, and a lithium secondary cell using the same. More particularly, the cathode active material for a lithium secondary cell comprises a lithium-transition metal oxide capable of lithium ion intercalation/deintercalation, wherein the cathode active material further comprises a lithium manganese oxide having a layered structure represented by the following formula 1 as an additive:[formula 1] $LiM_xMn_{1-x}O_2$ wherein, x is a number satisfying $0.05 \leq x < 0.5$, and M is at least one metal selected from the group consisting of Cr, Al, Ni, Mn and Co. The lithium manganese oxide of formula 1 used as an additive for a cathode active material of a lithium secondary cell provides lithium ions in such an amount as to compensate for an irreversible lithium ion-consuming reaction at an anode, or more, thereby providing a lithium secondary cell which is low in capacity loss by over-discharge.

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